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(72) Inventors:  
• **Freeze, Deron W.**  
**Cabarrus, North Carolina 28071 (US)**  
• **Greene, John Clay**  
**Greensboro, North Carolina 27409 (US)**

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(74) Representative: **Fitchett, Stuart Paul**  
**Marconi Intellectual Property**  
**Waterhouse Lane**  
**Chelmsford, Essex CM1 2QX (GB)**

(71) Applicant: **Marconi Commerce Systems Inc.**  
**Greensboro, North Carolina 27420 (US)**

(54) **Centralized transponder arbitration**

(57) The present invention relates to determining the proximity of a tag to a fuel dispensing position of a forecourt (20) and provides a system to store a sequence of data records relating to attributes of interactions between fuel dispensers (20) and tags (100). The data records may be stored on the tag or at a location remote from the tag, such as a fuel dispenser, central site controller (28) or other network (300). The data records may contain the identity of the dispenser, tag and any attribute or a received signal, such as frequency

band or signal strength, or other attribute indicative of proximity. Every dispenser (200) that attempts to communicate with a tag (100) adds its won interaction data to a limited history of a tag's past interactions with the same and other dispensers. When a dispenser (200) or central site control system (28) examines the contents of the interaction histories, the detected presence of other dispensers or the relative strength of the recorded interaction attributes will determine what, if any, action is to be taken by the dispensers or central site control system to communicate with the tag.

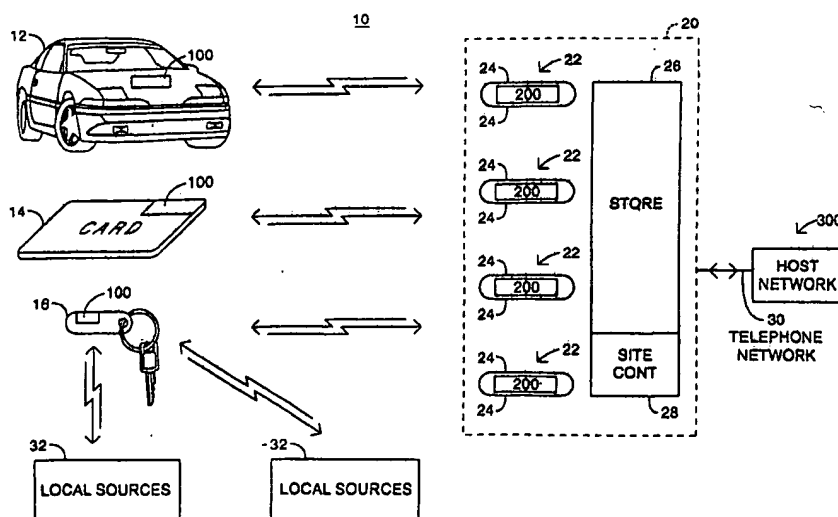


FIG. 1

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European Patent  
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# EUROPEAN SEARCH REPORT

Application Number  
EP 99 30 4901

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.Cl.6)
X	WO 97 21626 A (GILBARCO LTD) 19 June 1997 (1997-06-19)  * abstract; claims; figures * * page 2, line 18 - page 6, line 28 * * page 8, line 20 - page 12, line 18 *	1-4, 6, 7, 9, 12, 16, 17, 19, 21, 22	G07C5/00 B67D5/14 B67D5/33 G07F13/02
A	EP 0 461 888 A (EXXON RESEARCH ENGINEERING CO) 18 December 1991 (1991-12-18) * abstract; claims; figures *	1-22	
A	WO 94 19781 A (KIP HARM JACOB ; NEDAP NV (NL)) 1 September 1994 (1994-09-01)		
			TECHNICAL FIELDS SEARCHED (Int.Cl.6)
			B67D G07C G07F G06K
The present search report has been drawn up for all claims			
Place of search <b>THE HAGUE</b>		Date of completion of the search <b>25 September 2000</b>	Examiner <b>Meyl, D</b>
<p><b>CATEGORY OF CITED DOCUMENTS</b></p> <p>X : particularly relevant if taken alone  Y : particularly relevant if combined with another document of the same category  A : technological background  O : non-written disclosure  P : intermediate document</p> <p>T : theory or principle underlying the invention  E : earlier patent document, but published on, or after the filing date  D : document cited in the application  L : document cited for other reasons  &amp; : member of the same patent family, corresponding document</p>			

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**ANNEX TO THE EUROPEAN SEARCH REPORT  
ON EUROPEAN PATENT APPLICATION NO.**

EP 99 30 4901

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The members are as contained in the European Patent Office EDP file on  
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25-09-2000

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
WO 9721626 A	19-06-1997	AU 1102897 A	03-07-1997
		EP 0868393 A	07-10-1998
		US 5956259 A	21-09-1999
EP 0461888 A	18-12-1991	US 5072380 A	10-12-1991
		AT 119302 T	15-03-1995
		DE 69107695 D	06-04-1995
		DE 69107695 T	29-06-1995
		FI 912810 A	13-12-1991
		IE 67130 B	06-03-1996
		JP 4233067 A	21-08-1992
		NO 912126 A	13-12-1991
		PT 97929 A	31-08-1993
WO 9419781 A	01-09-1994	NL 9300290 A	16-09-1994

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